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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,694	03/30/2004	Richard C. Chu	POU920020098US2	4070

7590 01/14/2005  
William B. Porter  
IBM Corporation, Intellectual Property Law Dept.  
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EXAMINER

DATSKOVSKIY, MICHAEL V

ART UNIT PAPER NUMBER

2835

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/812,694	<b>Applicant(s)</b> CHU ET AL.	
	<b>Examiner</b> Michael V Datskovskiy	<b>Art Unit</b> 2835	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-3,6,7,10 and 11 is/are rejected.
- 7) ☐ Claim(s) 4,5,8 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) ✓  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being contradictory to an essential step of a parent claim 1. The parent claim 1 recites a rack as being provided in a first step of the claimed method. Therefore claim 2 cannot claim said rack as an existing installation. In addition examiner has to point out that an "existence" of a rack is rather a matter of supply management than a method step of making a device. A meaning of the term: "existing rack" is also not clear. To be provided something should definitely exist. Therefore it is not clear, which further limitation did applicant want to add to the parent claim 1 by claim 2.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-3, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharp et al (US Patent 6,506,111) in view of Schumacher et al (US Patent 6,374,627).

6. Sharp et al teach an air/water cooled rack mounted electronic apparatus 10, Figs. 1-9, comprising: a rack unit 12 including a plurality of removable electronic units – computer servers 15, said rack and said drawers including front and rear airflow openings; a subframe 16 on a bottom side of said rack 12, said subframe 16 including an air/water heat exchanger 20 connected to a coolant (cool water) supply; and an auxiliary air moving device – fan 18; a front door 28 covering a front opening of said rack 12; a back door 32 covering a back opening of said rack 12, wherein said front door 28 and said back door 32 are hinged to said rack 12 and are in airflow communication with said front and back rack openings respectively and with said subframe 16, when said doors are closed. Sharp et al do not specifically teach said drawer units each including an air-moving device for directing air through the drawer unit. Schumacher et al teach a rack mounted electronic apparatus 12, Figs. 3-4, each including a plurality of removable electronic units – computer servers 66-72, Fig. 3, said rack and said drawers including front and rear airflow openings, wherein each server includes an air-moving device (Fans 50-56) for directing air through the drawer. It would have been obvious to one skilled in the art at the time invention was made to employ electronic units (computer servers) having an air-moving fans as it is shown by Schumacher et al in the device by Sharp et al in order to enhance a heat dissipation.

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7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharp et al in view of Schumacher et al as applied to claim 1 above, and further in view of Beeten (US Patent 6,745,149).

Sharp et al in and Schumacher et al teach all the limitations of the claim except said covers (doors) are provided with sound-absorbing filler. Beeten teaches an electronic cabinet having an air-cooling, wherein interior walls of an enclosure 115 are covered with a sound-absorbing material. It would have been obvious to one skilled in the art at the time invention was made to employ a sound-absorbing filler with doors in the device by Sharp et al in and Schumacher et al, as it is shown by Beeten, in order to improve the device ergonomically.

8. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Sharp et al in and Schumacher et al as applied to claim 1 above, and further in view of Holt et al (US Patent 6,705,625).

Sharp et al in and Schumacher et al teach all the limitations of the claim except said sub-frame is provided with a plurality of casters. Holt et al teach a rack 10 comprising electronic equipment, wherein said rack 10 includes casters 12. It would have been obvious to one skilled in the art at the time invention was made to employ a plurality of casters on an underside of said sub-frame in the device by Sharp et al in and Schumacher et al, as it is shown by Beeten, in order to improve the device accessibility.

All rejections above are made on the assumption that the claimed method steps are inherently necessitated by the device structure as it is described in the submitted prior art references.

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9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Electronic rack with centralized cooling: Koltuniak et al (US Patent 3,749,981); Sharp et al (US Patent 6,652,373); Miller et al (US Patent 6,305,180); Patel et al (US Patent 6,628,520); Koizumi et al (US Patent 5,323,847); Smith et al (US Patent 6,836,030); Electronic racks with casters: Benson et al (US Patent 5,372,262); Chandler (US Patent 6,831,225); Blade servers with fans: Casebolt (US Patent 6,437,980); Bolognia et al (US Patent 6,462,670); Wu (US Patent 6,504,718); Anderson (US Patent 6,574,100); Gough (US Patent 6,722,971); Faneuf et al (US Patent 6,813,149); Electronic cabinet with sound-absorbing coating: Konle (German Patent DE29908953U1).

***Allowable Subject Matter***

10. Claims 4-5, 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: Providing an automatic latch mechanism having an over-temperature condition trigger.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V Datskovskiy whose telephone number is (571) 272-2040. The examiner can normally be reached on 8-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael V Datskovskiy  
Primary Examiner  
Art Unit 2835

01/10/2005